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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,058	01/30/2004	Yasusuke Iwashita	392.1869	5477

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EXAMINER	
IP, SHIK LUEN PAUL	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/767,058	IWASHITA ET AL.	
	Examiner	Art Unit	
	Paul Ip	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *the response filed on 9/23/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,10,11,13 and 15* is/are rejected.

7)☒ Claim(s) *7-9,12 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 1/30/04 and 10/13/2005 are in compliances with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Maeda (6,107,771).

With respect to claim 1, Maeda shows in figures 1-3 servomotor systems comprising a velocity command determining means 3 and a correction means 2. Maeda shows in figures 1-3 a position/speed detector and a position detector 11 for providing the position/speed feedback signal to the position/speed/current control 3.

With respect to claim 2, Maeda shows in figures 1-3 that the correction data are predetermined using learning controller 2.

With respect to claims 3, 4, and 6, see column 1 line 48 to column 2 line 40 and figures 5, 6, 10, and 11 for the learning controller 2.

5. Claims 10, 11, 13, and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Seong et al (5,666,034 or 5,773,938).

With respect to claim 10, Seoung et al show in figure 2 a torque command determining means A5 for determining and outputting a torque command τ *.

With respect to claims 11, 13, and 15, Seoung et al show a learning compensator 27 for determining the correction databased on the position deviations and by subtracting a second-order differential value of the position command from the torque command obtained by the learning compensator.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (6,107,771) in view of Ishikawa (5,907,450).

Claim 5 further recite detecting means for detecting reversal of the position command. Maeda discloses a positional difference correcting controller and Maeda shows in figure 5 step S3 for detecting the reversion of sign detected by comparison with OLD. However, the patent to Ishikawa shows a reverse mode to controlled system 204 for determining reversal of the position command. Prima facie case of obviousness is made that Maeda discloses the position difference correcting controller and step S3 for detecting the reversion of sign detected by comparison with OLD, Maeda taught and suggest a detecting means for detecting reversal but not called a reversal detecting means. Since Maeda's positional difference correcting controller provides the reversal detecting function, it would have been obvious to one of ordinary skill in the art to provide Maeda with the reverse model to controlled system as taught or suggested by

Ishikawa for detecting reversal of the position command the same as Maeda's step S3 shown in figure 5 of the patent.

Allowable Subject Matter

10. Claims 7-9, 12, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

11. Applicant's arguments filed on Sep. 23, 2005 have been fully considered but they are not persuasive.

Applicant argues that Maeda fails to determine and outputting a velocity command at every predetermined period based on a deviation between a position command from a host controller as recited in claim 1. Applicant further recites Maeda column 5 line 61 to column 6 line 5 and column 6 lines 9-39. Applicant incorrectly directed and misinterpreted the cited columns and lines. Applicant's argument is not supported by the Maeda reference. Applicant's attention is directed to Maeda the Description of The Related Art column 1 lines 30-65. Maeda discloses at lines 30-41 that "The position/speed/current controller 3 finds a speed command by multiplying the sum of the position deviation and the amount of correction by a positional gain, finds a speed deviation by subtracting a speed feedback value, detected and fed back by the position/speed detector 6, from the speed command, finds a torque command (a current command) through proportion integral control or the like..." Maeda further discloses at lines 48-65 that "The learning controller 2 is composed of a delay element memory

stored with data for one cycle portion (i.e., for n-sampling cycle portion) of the move command Pc, issued repeatedly in a predetermined cycle according to the same pattern, and a dynamic characteristic compensation element. Then, the data resulting from adding the data stored in the delay element memory, i.e., data precedent to a current cycle by one cycle to the position deviation..." Maeda discloses in these lines the velocity command determining means 3 for determining and outputting a velocity command at every predetermined period in terms of "cycle" based on a deviation between a position command from a host controller and a position feedback signal from a position detector as recited in the claim.

Applicant should realize that claims 1 and 10 are drafted in a board sense that it fails to define the invention of this application. The claims are drafted in the board sense that Maeda and Seong et al teach or suggest the claimed limitation as notorious old in the art. Applicant should amend the claims including the limitations as recited in the objected claims 7-9, 12, and 14 in order to overcome the rejection and particularly define the invention.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Ip whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 am to 3:00 pm Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (571)-272-2107. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Ip
Primary Examiner
AU 2837

11/22/05